

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS F. MORAN

Appeal No. 98-1292
Application 08/570,835¹

ON BRIEF

Before MEISTER, ABRAMS, and STAAB, Administrative Patent Judges.

ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the decision of the examiner
finally rejecting claims 6, 7, 9, 11, 13-15, 17, 19 and 20,

¹ Application for patent filed December 12, 1995.
According to appellant, this application is a continuation of
Application 08/265,007, filed June 24, 1994, now abandoned.

Appeal No. 98-1292
Application No. 08/570,835

which constitute all of the claims remaining of record in the application.

The appellant's invention is directed to a holddown device for use with a machine tool (claims 6, 7, 9, 11, 13, 14 and 20), and to a method for holding down workpieces for operations by a machine tool (claims 15, 17 and 19). The subject matter before us on appeal is illustrated by reference to claim 14, which has been reproduced in an appendix to the Brief.

THE REFERENCES

The references relied upon by the examiner to support the final rejection are:

Meinel et al. (Meinel)	4,795,518	Jan. 3, 1989
Effner	5,222,719	Jun. 29, 1993
Kitagawa	5,346,193	Sep. 13, 1994 (filed Sep. 22, 1992)
Gulden (German patent)	3 208 864	Sep. 22, 1983
Carne (PCT)	93/22104	Nov. 11, 1993

THE REJECTION

Appeal No. 98-1292
Application No. 08/570,835

Claims 6, 7, 9, 11, 13-15, 17, 19 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Gulden in view of Carne, Meinel, Effner and Kitagawa.

The rejection is explained in the Examiner's Answer.

The opposing viewpoints of the appellant are set forth in the Brief.

OPINION

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a *prima facie* case of obviousness under 35 U.S.C. § 103, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's

Appeal No. 98-1292
Application No. 08/570,835

disclosure. See, for example, *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988). The examiner's position is that the basic structure recited in the two independent claims is disclosed by Gulden, and that it would have been obvious to one of ordinary skill in the art to modify Gulden by covering the entire surface with plenums each defined by a disk having raised edges, in view of Carne, then substitute O-rings for Carne's raised edges in view of Meinel, then to substitute a toroidal O-ring groove for Meinel's groove of square cross-section, in view of Effner, then to substitute a blower for Gulden's vacuum pump to provide the negative pressure, in view of Kitagawa. The appellant argues that this is a wholesale redesign of the Gulden device based upon hindsight reasoning, and that even if this were a proper combining of references, the result would not be the claimed invention.

The examiner's position is fatally defective at the outset for, even assuming, *arguendo*, that the reasons for combining the references in the manner proposed are proper, the resulting structure fails to meet one requirement of the

claims. As pointed out by the appellant, both of the independent claims before us require that each of the rings within the outer periphery abut six adjacent rings to form a continuous pattern of rings. The reason for this is to minimize the surface area that is not placed under vacuum (specification, page 8). Such a relationship is not explicitly disclosed or taught, nor is it inherently present, in any of the applied references. Only Carne recognizes this problem, but solves it in a different fashion, by utilizing several sizes of plenums. Thus, the structure resulting from the examiner's combination of references does not establish a *prima facie* case of obviousness with regard to the subject matter of the claims on appeal.

We also wish to note that in our view there exists no suggestion to combine the Meinel and Effner references in the manner proposed by the examiner. Even conceding, *arguendo*, that it would have been obvious to modify Gulden by covering substantially the entire working surface with plenums having outer sides comprising raised ridges and a bottom formed by the planar work surface, we fail to perceive any suggestion which would have led one of ordinary skill in the art to take

the next step, that is, to replace the plenum chamber of Carne, in which the bottom and the edges are of integral one-piece construction (Figure 2), with the O-ring system disclosed by Meinel. We reach this conclusion because at least one disincentive to do so exists. This is grounded in the fact that basic to the Carne invention is that each support module, such as disc 341 of Figure 2, is an integral one-piece unit comprising a working surface 311 and an upstanding flexible sealing ridge 346. To discard this one-piece structure and to replace the sealing ridges by putting grooves in the support surface and installing individual O-rings in the grooves would constitute a wholesale redesign of the Carne invention, destroying the features that are touted as the improvements in the art provided by the invention. From our perspective, this would deter one of ordinary skill in the art from making the modification. Adding Effner gives rise to this same problem. As the examiner points out, the O-rings disclosed in Meinel are installed in grooves that have a rectangular cross-section, and this is because Meinel teaches that the O-rings be compressed beneath the workpiece (Figure 1B) when the vacuum is applied so that the workpiece is pulled

Appeal No. 98-1292
Application No. 08/570,835

tightly against the support plate. To replace the disclosed groove with one in which the cross-section is toroidal would destroy this teaching and, again, operate as a disincentive to the artisan to make the proposed modification. In this regard, we note that the reason for the structure claimed by the appellant is to cause the O-rings to fit tightly into the groove to avoid accidental removal (specification, page 7), which is a problem not recognized in any of the applied references.

The rejection is not sustained.

The decision of the examiner is reversed.

REVERSED

James M. Meister)
Administrative Patent Judge)
)
)

Appeal No. 98-1292
Application No. 08/570,835

PATENT	Neal E. Abrams)	
)	BOARD OF
	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
	Lawrence J. Staab)	
	Administrative Patent Judge)	

tdc

Appeal No. 98-1292
Application No. 08/570,835

Rankin Hill Lewis & Clark
700 Huntington Building
925 Euclid Avenue
Cleveland, OH 44115-1405